

Findings of IPCC Special Report on Climate Change and Land on food security

www.ipcc.ch/report/SRCCL



Agricultural landscape between Ankara and Hattusha, Anatolia, Turkey (40°00' N – 33°35' E)
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INTERGOVERNMENTAL PANEL ON climate change

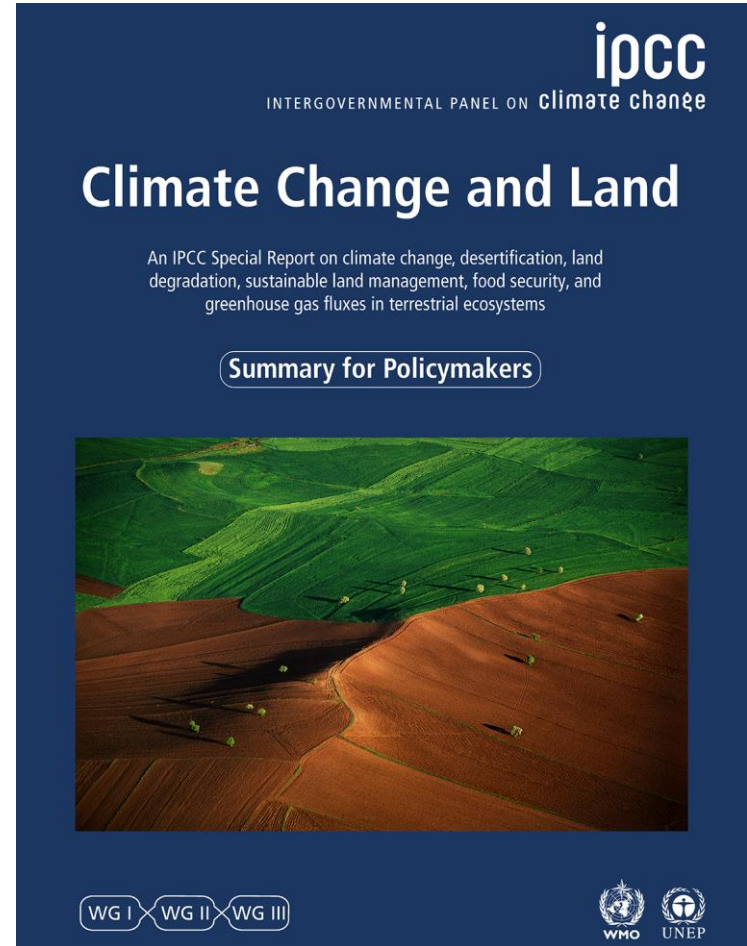


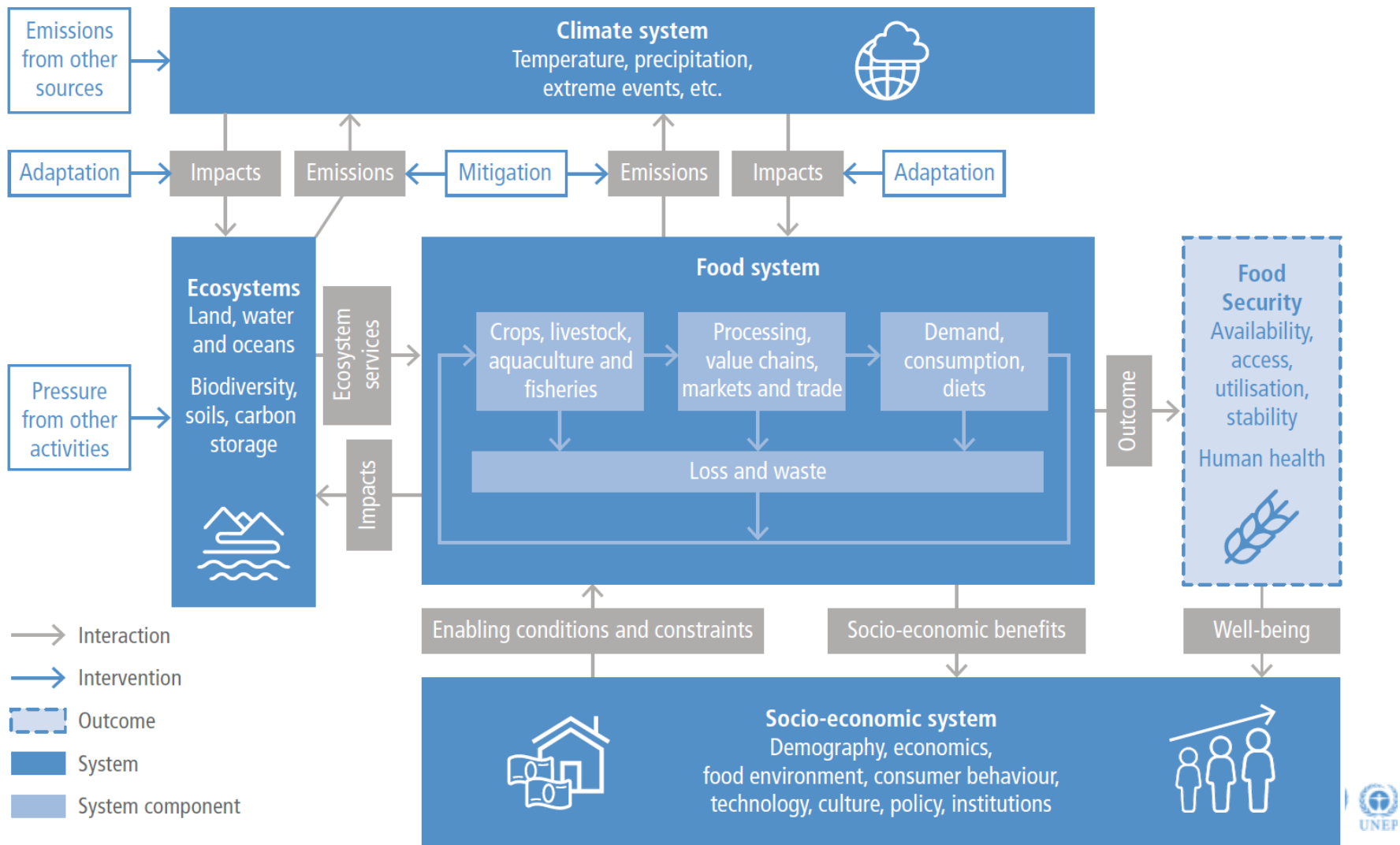
CLIMATE CHANGE AND LAND

An IPCC Special Report on climate change, desertification, land degradation, sustainable land management, food security, and greenhouse gas fluxes in terrestrial ecosystems.

REPORT COVER IMAGE:

Agricultural landscape between Ankara and Hattusha, Anatolia, Turkey (40°00' N – 33°35' E)
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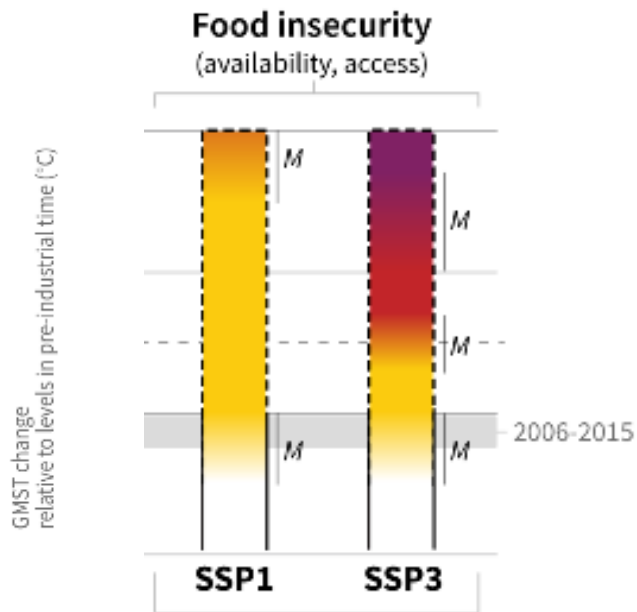


Food and Agriculture

- **821 million** people are currently **undernourished** and 2 billion adults are overweight or obese.
- The food system is **under pressure** from non-climate stressors (e.g., population and income growth, demand for animal-sourced products), and from climate change.
- Climate change is **already affecting food security** through increasing temperatures, changing precipitation patterns, and frequency of some extreme events. This will continue.
- **Distributions of pests and diseases will change**, affecting production negatively in many regions.
- Food security & climate change have **strong gender dimensions**.
- Many practices can be optimised and scaled up to **advance adaptation throughout the food system**.



Climate change is making a **challenging situation worse and undermining food security.**



Different socioeconomic pathways affect levels of climate related risks

(figure 2B)

Socio-economic choices can reduce or exacerbate climate related risks as well as influence the rate of temperature increase.

- Risks related to food security are greater in pathways with lower income, increased food demand, increased food prices resulting from competition for land, more limited trade, and other challenges to adaptation (e.g., SSP3).
- For food security, the transition from moderate to high risk occurs for global warming between 2.5°C and 3.5°C in SSP1 and between 1.3°C and 1.7°C in SSP3.
- The transition from high to very high risk occurs between 2°C and 2.7°C for SSP3.



Food and Emissions

- **25-30% of total Greenhouse gas emissions** are attributable to the food system.
- **Supply-side practices** can help mitigate climate change mitigation by **reducing crop and livestock emissions**, **absorbing carbon** in soils and biomass, and **decreasing emissions intensity** within sustainable production systems.
- Consumption of **balanced diets** presents major opportunities for **reducing emissions** from food systems and **improving health outcomes**.
- **Reduction of food loss and waste** could lower emissions and **improve food security**.
- Policies, markets, institutions, and governance are needed to enable change.



Agriculture, food production, and deforestation are major drivers of climate change.



The way we produce our food matters; dietary choices can help reduce emissions and pressure on land.

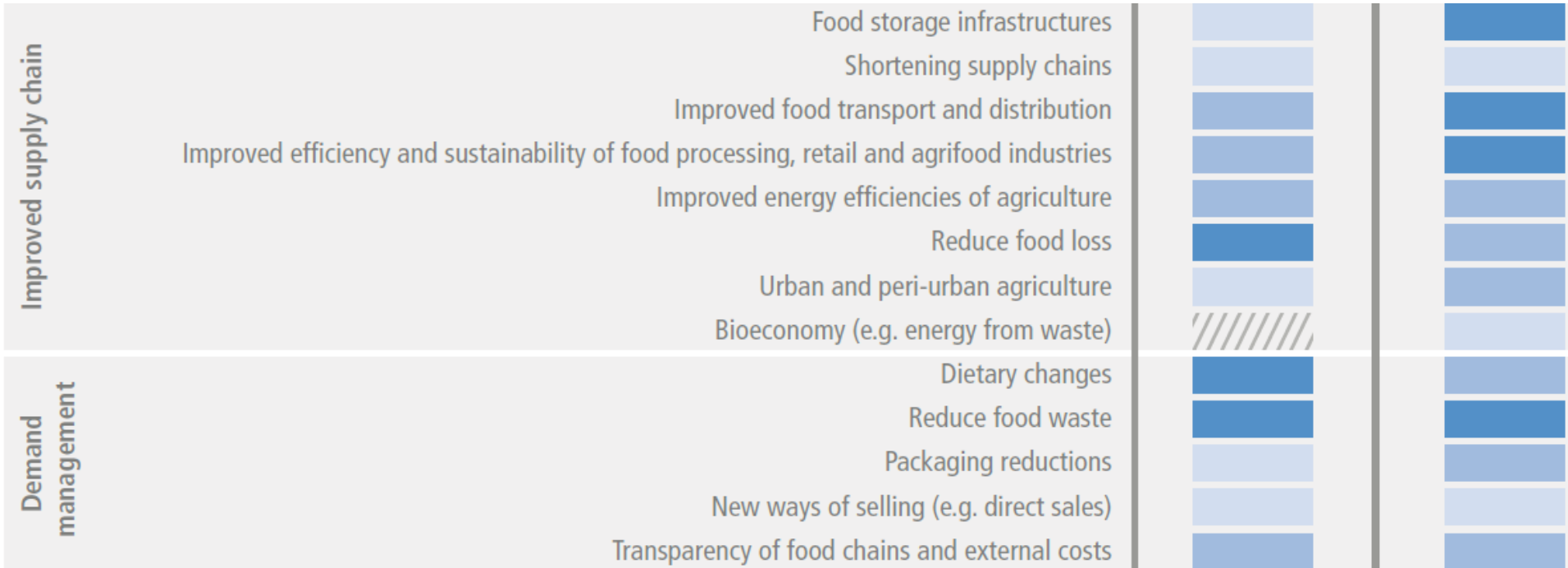
Food system response options

Mitigation and adaptation potential



Improved crop management







There are **actions available** to us that can simultaneously **improve land, enhance food security and improve nutrition.**

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Summary for Policymakers



WG I | WG II | WG III



FOR MORE INFORMATION:

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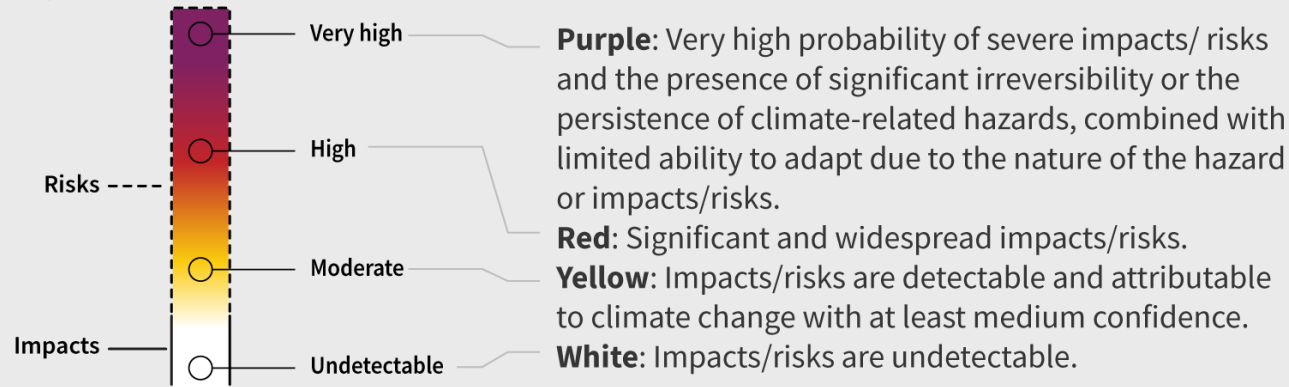
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Legend: Level of impact/risk



Legend: Confidence level for transition

